Important Symptoms

The sensation of facial swelling in temporal arteritis: a predictor for the development of visual disturbance

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Summary: The sensation of facial swelling in temporal arteritis may be an important predictor of the development of visual disturbance. A clinical report of two patients who developed a sensation of puffiness of the face without altered facial appearance, as a presenting symptom of temporal arteritis with visual disturbance is presented. This symptom, though documented previously by us, has not been identified before as a predictor of visual disturbance.

Introduction

Temporal arteritis, first described in 1890 by Hutchinson, is a well established clinical entity occurring in elderly patients (Healy & Wilske, 1977; Friedman *et al.*, 1982), and characterized by granulomatous arteritis of medium and large vessels. An important complication of the disease is loss of vision due to involvement of the ophthalmic and ciliary arteries. The importance of early diagnosis is emphasized by the fact that 30–40% of the patients become blind before the diagnosis is established (Fainaru *et al.*, 1979; Hollenhorst *et al.*, 1960).

The present report deals with an hitherto unrecognized presenting symptom of temporal arteritis, the sensation of a swollen face, experienced by patients who will develop visual disturbance.

Case reports

Case 1

A 75 year old woman was admitted to this hospital because of bilateral blindness. Ten weeks before hospitalization, the patient experienced a bilateral sensation of 'facial puffiness' and an anti-histaminic preparation was prescribed. On admission, her temperature was 38°C. No altered facial appearance was noted. Bilateral localized tenderness over the forehead and over the right temporal artery was observed. The

neurological examination was within normal limits and ophthalmic examination revealed bilateral ischaemic optic neuritis. The erythrocyte sedimentation rate was 90 mm/h (Westergren), haemoglobin was 10.5 g/dl; urine analysis was normal and so was X-ray of the sinuses. A temporal artery biopsy confirmed the diagnosis of giant cell arteritis. Although intravenous treatment with 300 mg of hydrocortisone was started immediately, only minimal visual recovery was obtained. The sensation of facial puffiness disappeared after 4 weeks of steroid treatment.

Case 2

A 68 year old man presented with sudden severe retro-orbital pain associated with visual impairment. Six weeks before hospitalization, he complained of a 'swollen face'. No facial oedema was observed. Physical examination and urine analysis at that time were completely normal. On admission, the physical examination revealed localized tenderness over the left temporal artery and lower cheek. No facial oedema was observed and the neurological examination was normal. Ophthalmic examination revealed mild optic nerve ischaemia with central scotoma in his left eye. The erythrocyte sedimentation rate was 110 mm/h and haemoglobin 8.9 g/dl. The X-ray of the sinuses was normal. Diagnosis of temporal arteritis was confirmed by temporal artery biopsy. The patient was treated with oral prednisolone, 50 mg/day, with subsequent improvement in vision and in the sensation of facial oedema over the next 6 weeks.

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Discussion

Blindness is the most dreaded complication of temporal arteritis (Ross, 1959; Wagoner & Hollenhorst, 1958). The ophthalmoscopic findings include ischaemic optic neuritis, occlusion of a central artery and vein, optic atrophy and ischaemic retrobulbar neuritis (Hollenhorst *et al.*, 1960). Some authors have stated that more than 50% of patients with temporal arteritis become blind in one or both eyes at the time of diagnosis (Fainaru *et al.*, 1979; Hamrin, 1972). Accurate diagnosis is therefore essential and treatment with steroids should be instituted urgently once a clinical diagnosis has been made (Beevers *et al.*, 1973).

In the majority of patients, the onset is insidious, with loss of weight, anorexia, fatigue, fever and muscle aches, essentially symptoms of a nonspecific type. Correct diagnosis is rarely possible at this time.

The striking feature in the two patients presented in this report is that both experienced a sensation of facial swelling without clinically observable signs, as a sole manifestation of temporal arteritis, 6–10 weeks

before the development of visual symptoms. When we reviewed the charts of 58 patients with biopsy-proven temporal arteritis (a detailed account of 47 patients, their clinical and laboratory manifestations and the results of treatment have been reported previously by us, Fainaru *et al.*, 1979), it was found that puffy face sensation without skin oedema or an altered facial appearance had occurred in 13 of the patients. In 3 it was the presenting symptom. Of considerable significance, however, is that all the 13 patients who experienced this sensation developed various visual disturbances. Although the explanation of why patients who react with puffy face sensation develop visual symptoms remains unknown, we assume that it is related to the underlying arteritis. The importance of this phenomenon should be more widely appreciated.

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